

RESOURCE PACKET

Assessment of Speech: Voice



Determination of Speech Impairment: Voice

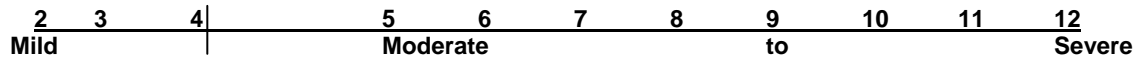
Student _____ School _____ Grade _____ Date of Rating _____ DOB _____ Age _____ SLT _____

Pitch	0 Pitch is within normal limits.	1 There is a noticeable difference, which may be intermittent.	3 There is a persistent, noticeable inappropriate raising or lowering of pitch for age and sex.
Intensity	0 Intensity is within normal limits.	1 There is a noticeable difference in intensity, which may be intermittent.	3 There is persistent, noticeable, inappropriate increase or decrease in the intensity of speech or the presence of aphonia.
Quality	0 Quality is within normal limits.	1 There is a noticeable difference in quality, which may be intermittent.	3 There is persistent, noticeable, breathiness, glottaltry, harshness, hoarseness, tenseness, stridency or other abnormal quality.
Resonance	0 Nasality is within normal limits.	1 There is a noticeable difference in nasality, which may be intermittent.	3 There is persistent, noticeable cul de sac, hyper or hyponasality, or mixed nasality.

Instructions:

1. Do not include regional or dialectal differences when scoring.
2. Circle the score for the most appropriate description for each category, i.e., Pitch or Intensity.
3. Compute the total score and record below.
4. Circle the total score on the bar/scale below.

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3. Compute the total score and record below.
4. Circle the total score on the bar/scale below.

**TOTAL SCORE**

Based on compilation of the assessment data, this student scores in the *Mild, Moderate or Severe* range Voice Disorder.

There is documentation/supporting evidence of adverse effects of the Voice disorder on educational performance.

☐ Yes ☐ No

☐ Yes ☐ No

Determination of eligibility as a student with a Speech and/or Language Impairment is made by the IEP Team.

Voice Severity Rating Scale

ASSESSMENT GUIDELINES FOR SPEECH – VOICE

VOICE ASSESSMENT CONSIDERATIONS

There are multiple aspects to consider when evaluating voice impairments:

- pitch,
- loudness, and
- quality – including resonance.

Many disorders of voice or resonance have an organic etiology with a related medical history. Other disorders are functionally based, caused by “faulty usage” or behavioral histories. For assessment and instructional purposes, classifying voice disorders by vocal behaviors or symptoms provides the most useful information for the Speech-Language Therapist (SLT). Boone and McFarlane (1988) suggest that “Patients with voice quality and resonance problems generally require some medical evaluation of the ears, nose, and throat as part of the total voice evaluation...A laryngeal examination must be made before a patient can begin voice therapy for problems related to quality or resonance...Voice therapy efforts should be deferred until a medical examination (which would include laryngoscopy) is concluded, because there are occasional laryngeal pathologies, such as papilloma or carcinoma, for which voice therapy would be strongly contraindicated. In such cases, the delay of accurate diagnosis of these pathologies could be life-threatening (pp. 104-105).” No child should be enrolled for voice therapy without prior otolaryngological examination. However, the presence of a medical condition (e.g., vocal nodules) does not necessitate the provision of voice therapy as a disability requiring special education – nor does a prescription for voice therapy from a physician.

CONDUCTING A SPEECH EVALUATION FOR VOICE

- Conduct hearing and vision screenings.
- Obtain relevant information from the parents (i.e., concerns about communication skills, developmental history, etc).
- Information must be gathered from two educators – the student’s classroom teacher as well as another professional. For preschoolers, obtain information from child care providers and other adults who see the child outside the family structure.
- Obtain information from teachers related to progress in the general curriculum, communication skills, behavior, and social interactions. General curriculum for preschoolers is developmentally appropriate activities.
- Review school records (e.g., grades, test scores, special education file, documentation of prereferral strategies/interventions, and discipline and attendance records).
- Complete an oral-peripheral examination.
- Obtain medical report from an Otolaryngologist.
- Collect a representative sample of the student’s speech.
- Analyze voice, pitch, intensity and quality.

- Document how the student's voice impairment adversely affects the student's educational performance in the general education classroom or the learning environment. For preschoolers, document how the voice dysfunction adversely affects their ability to participate in developmentally appropriate activities.
- Complete the *Voice Severity Rating Scale*.
- Finalize and submit to the IEP team a *Speech and Language Evaluation Report*.

INTERPRETING AND REPORTING EVALUATION RESULTS

Several checklists are available to report findings. For more detailed information regarding procedures for assessing fundamental frequency/habitual pitch, breathing patterns and breath support, and the s/z ratio for respiratory/phonatory efficiency, refer to Assessment in Speech-Language Pathology: A Resource Manual (Shipley and McAfee, 1998). Procedures for the identification of resonance problems including hypernasality, hyponasality and assimilation nasality, and assessment of velopharyngeal functioning can be found in this resource packet as well. The impairment must not be related to unresolved upper respiratory infection or allergies that are not being actively treated by a physician.

USING THE VOICE SEVERITY RATING SCALE

The *Voice Severity Rating Scale* is to be used as a tool after conducting a complete assessment of the student's voice. The scale is designed to assist the examiner with interpretation and documentation of the results of voice assessment findings in terms of severity (pitch, intensity, quality and resonance). This scale is not a diagnostic instrument and should not be used in the absence of assessment data.

In order to be identified as a student with a Speech Impairment with voice difficulties, the severity of voice dysfunction must be determined to have an "adverse effect on educational performance." The rating scale serves three purposes:

- 1) to document the presence of voice dysfunction and to what extent (*Mild, Moderate, Severe*),
- 2) to indicate the absence or presence of adverse effects on educational performance, and
- 3) to determine whether or not the student meets eligibility standards for a speech impairment in voice.

"Educational performance" refers to the student's ability to participate in the educational process and must include consideration of the student's social, emotional, academic, and vocational performance. The presence of voice dysfunction does not automatically indicate an adverse effect on the student's ability to function within the educational setting. The voice dysfunction must be shown to interfere with the student's ability to perform in the educational setting before a disability is determined. The effect on educational performance is, therefore, best determined through classroom observation, consultation with classroom teachers and other special educators, and interviews with parents and the student. Teacher checklists are useful for determining how the voice dysfunction affects educational performance.

PARENT RELEASE OF INFORMATION

Name: _____
Date of Birth: _____
School: _____
Date Sent: _____

Dear Parent or Guardian:

Your child's teacher has expressed concerns about his/her voice. According to *Tennessee State Rules and Regulations* for Special Education programs, a voice assessment shall include an examination by an Otolaryngologist. We feel that s/he should be seen by an Otolaryngologist.

Please take the enclosed forms and information to the doctor with your

1. copy of this letter, and
2. medical response form with the attached envelope addressed to the school system.

The medical form is to be filled out by the doctor and returned to us so that we may determine appropriate follow-up services. In order to comply with federal law, your written permission is required so that the school system can receive information from your doctor. Please sign on the line indicated below and give this form to your child's doctor.

Parent's Signature

I, _____, permit my physician to release information about my child's voice mechanism examination to the _____ school system.

Sincerely,

Speech/Language Therapist

Parent Release of Information (Voice)

PHYSICIAN SIGNATURE FORM

Name _____ Date Sent _____

Address _____ Birth Date _____

Parents _____ Telephone _____

School _____

Dear Physician:

The above-named student is suspected to have a voice problem. In accordance with Tennessee's *Eligibility Standards for Speech/Language Impairments*, a voice assessment shall include an examination by an Otolaryngologist. After your examination, please fill in the following information to assist in determining if voice therapy would be beneficial.

Medical diagnosis: _____

- I. Nose: Obstruction? _____ If so, explain _____
- II. Palate: Structural abnormalities? _____
Functional abnormalities? _____
Adequate velopharyngeal port closure? _____
- III. Pharynx: Asymmetry of muscle contraction? _____
Growth(s) or other abnormalities? _____
- IV. Larynx: Size normal for age and sex? _____
Do vocal folds approximate properly during phonation? _____
Evidence of muscle tension during phonation? _____
Color of vocal folds normal? _____
Visible scars? _____ Growths? _____
Other pathologies? _____

Does patient have allergies, sinus infections, or other chronic conditions, which might contribute to abnormal vocal quality? _____

Could patient's misuse of voice have contributed to abnormal structure or function? _____

Do your findings explain the abnormal vocal quality? _____

Do you recommend surgery? _____ Medication? _____

Do you recommend voice therapy with a trained speech-language pathologist? _____

Other recommendations: _____

Please return to:

Physician's Signature Form – Voice

VOICE EVALUATION
(for Otolaryngologist)

STUDENT NAME _____ DATE OF BIRTH _____
DATE OF REPORT _____ DATE SENT _____ AGE _____

_____ is suspected to have a voice problem.
According to *Tennessee State Rules and Regulations* for Special Education programs, a voice assessment shall include an examination by an Otolaryngologist. The information you provide on this form is a required component for the assessment of voice impairment.

1. Are there any structural or functional abnormalities present for the following? (Check and describe briefly.)

- ☐ Nose _____
- ☐ Lips _____
- ☐ Jaw _____
- ☐ Tongue _____
- ☐ Palate _____
- ☐ Pharynx _____
- ☐ Ears _____
- ☐ Teeth _____
- ☐ Other _____
- ☐ No structural or functional abnormalities present

2. Describe the appearance of the vocal cords. (Check those that apply.)

- ☐ Normal
- ☐ Thickened
- ☐ Edematous
- ☐ Inflamed
- ☐ Malformed
- ☐ Other _____

3. Is there presence of vocal pathology?

- ☐ Vocal nodules
- ☐ Polyps
- ☐ Ulcers
- ☐ None

4. Are there any medical recommendations: _____

5. Some children can be helped to eliminate or modify voice problems through speech therapy. Do you see any limitations on the amount or kind of speech therapy?

☐ No ☐ Yes _____

6. Comments: _____

Otolaryngologist's Name (Print) _____ Date _____

Otolaryngologist's Signature _____

Voice Evaluation (Otolaryngologist)

TEACHER INPUT - VOICE

Student _____ Date _____
 Teacher _____ Grade/Program _____

Your observations of the above student's speech will help determine if s/he has a voice problem which adversely affects educational performance. Please answer all questions and return this form to _____.

	Yes	No
1. Is this student able to project loudly enough to be adequately heard in your classroom during recitations?	_____	_____
2. Does this student avoid reading out loud in class?	_____	_____
3. Does this student appear generally to avoid talking in your classroom?	_____	_____
4. Does this student ever lose his or her voice by the end of the school day?	_____	_____
5. Does this student use an unusually loud voice or shout a great deal in your classroom?	_____	_____
6. Does this student engage in an excessive amount of throat clearing or coughing? If so, which? _____ If so, how does it appear to disturb the other students, (e.g., their concentration, listening)? _____	_____	_____
7. Is this student's voice quality worse during any particular time of the day? If so, when? _____	_____	_____
8. Does this student's voice quality make it difficult to understand the content of his or her speech?	_____	_____
9. Does this student's voice quality in itself distract you from what s/he is saying?	_____	_____
10. Has this student ever mentioned to you that s/he thinks s/he has a voice problem?	_____	_____
11. Have you ever heard any of his/her peers mention his/her voice sounds funny or actually make fun of this student because of his/her voice problem?	_____	_____
12. If this student has a pitch that is too low or too high, does his/her pitch make it difficult to identify him/her as male or female just by listening?	_____	_____
13. During speaking, does this student's voice break up or down in pitch to the extent that s/he appears to be embarrassed by this?	_____	_____

☐ YES ☐ NO *It is my opinion that these behaviors adversely affect the student's educational performance.*

If yes, provide explanation: _____

Teacher's Signature _____ Date _____

Adapted from *Speech and Language Services in Michigan*: Suggestions for Identification, Delivery of Service and Exit Criteria, edited by Elizabeth Loring Lockwood and Kathleen Pistano. East Lansing: The Michigan Speech-Language-Hearing Association, 1991.

Teacher Input – Voice

VOICE EVALUATION WORKSHEETS

Child _____ DOB _____ Date _____ SLT _____

School _____ Teacher _____ Grade _____

Record areas assessed. The assessment should reflect areas of concern described in the referral and those that arise during the evaluation. Areas not assessed should be marked N/A.

Voice Area	Impairment	Evidence	Adverse Effects on Educational Performance
PHONATION			
Isolation			
Total Pitch Range			
Optimum Pitch			
Pitch Appropriateness for Age			
Pitch Appropriateness for Sex			
Loudness Range			
Aphonia			
Breathiness			
Diplophonia			
Glottal Fry			
Hoarseness			
Harshness			
Tremor			

Child _____ Date _____

Voice Area	Impairment	Evidence	Adverse Effects on Educational Performance
PHONATION (<i>cont'd</i>)			
Connected Speech			
Voice Onset			
Voiceless to Voiced			
Appropriateness of Loudness			
Pitch Breaks			
Pitch Range			
Habitual Pitch			
Aphonia			
Breathiness			
Diplophonia			
Glottal Fry			
Hoarseness			
Harshness			
Tremor			
RESONANCE IN CONNECTED SPEECH			
Hypernasality			
Hyponasality			
Throatiness/Cul De Sac			
Nasal Emission			
Assimilation Nasality			

Child _____ Date _____

Voice Area	Impairment	Evidence	Adverse Effects on Educational Performance
PROSODY IN CONNECTED SPEECH			
Stress			
Intonation			
RESPIRATION			
Type of Breathing Pattern			
At rest			
In Connected Speech			
Breath Support for Speech			
Posture			
Tension			
ASSOCIATED FACTORS			
Vocal Abuse Behaviors			
Personality Factors			
ORAL MECHANISM			
Structure			
Function/Tension			
OTL EXAMINATION RESULTS			

VOCAL CHARACTERISTICS CHECKLIST¹

Name: _____ Age: _____ Date: _____

Examiner: _____

Instructions: Check each characteristic your student exhibits and indicate severity. Make additional comments on the right-hand side of the page.

1 = mild

2 = moderate

3 = severe

Comments

Pitch

____ too high _____

____ too low _____

____ monotone _____

____ limited variation _____

____ excessive variation _____

____ pitch breaks _____

____ diplophonia _____

Loudness

____ too loud _____

____ too soft or quiet _____

____ monoloudness _____

____ limited variation _____

____ excessive variation _____

Phonatory-Based Quality

____ breathy voice _____

____ shrill voice _____

____ strident voice _____

Vocal Characteristics Checklist

¹ Assessment in Speech-Language Pathology 1998 by Singular Publishing Group.

Phonatory-Based Quality *(continued)***Comments**

- ___ harsh voice _____
- ___ hoarse voice _____
- ___ quivering voice _____
- ___ tremor in the voice _____
- ___ weak voice _____
- ___ loss of voice _____
- ___ glottal fry _____

Nasal Resonance

- ___ hypernasal _____
- ___ nasal emission _____
- ___ assimilation nasality _____
- ___ hypernasal (denasal) _____

Oral Resonance

- ___ cul-de-sac _____
- ___ chesty _____
- ___ thin, babyish voice _____

Other

- ___ reverse phonation _____
- ___ progressively weakening voice _____
- ___ aggressive personality factors _____
- ___ breathing through the mouth _____
- ___ hard glottal attacks _____
- ___ inadequate breath support _____
- ___ throat clearing _____
- ___ disordered intonational patterns _____
- ___ disordered stress patterns _____

VOCALLY ABUSIVE BEHAVIORS CHECKLIST¹

Name: _____ Age: _____ Date: _____

Examiner: _____

Instructions: Have the student evaluate each behavior according to the rating scale. Use the comments column on the right-hand side to add any additional, relevant information.

1 = never

3 = occasionally

5 = always

2 = infrequently

4 = frequently

Comments

_____ alcohol consumption _____

_____ arcade talking _____

_____ arguing with peers, siblings, others _____

_____ athletic activity involving yelling _____

_____ breathing through the mouth _____

_____ caffeine products used (coffee, chocolate, etc.) _____

_____ calling others from a distance _____

_____ cheerleading or pep squad participation _____

_____ coughing or sneezing loudly _____

_____ crying _____

_____ dairy products used _____

_____ debate team participation _____

_____ environmental irritants exposure _____

_____ grunting during exercise or lifting _____

_____ inhalants used frequently _____

_____ laughing hard and abusively _____

_____ nightclub social talking _____

Vocally Abusive Behaviors Checklist

¹ Assessment in Speech-Language Pathology 1998 by Singular Publishing Group.

Comments

_____ participation in plays_____	
_____ singing in an abusive manner_____	
_____ smoking_____	
_____ speeches presented_____	
_____ talking loudly during menstrual periods_____	
_____ talking loudly during respiratory infections_____	
_____ talking for extended periods of time_____	
_____ talking in noisy environments_____	
_____ talking in smoky environments_____	
_____ talking while in the car_____	
_____ teaching or instructing_____	
_____ telephone used frequently_____	
_____ vocalizing toy or animal noises_____	
_____ vocalizing under muscular tension_____	
_____ yelling or screaming_____	
_____ other _____	

Vocally Abusive Behaviors Checklist

VOCAL SELF-PERCEPTION: ATTITUDINAL QUESTIONNAIRE

1. Do you ever think about your voice?	Yes	No	No Opinion
2. Have you ever heard your voice on tape playback (e.g., on cassette recorder, answering machine)?	Yes	No	No Opinion
3. Did you like your voice on tape playback?	Yes	No	No Opinion
4. Has anyone ever commented on your voice? <i>If Yes, what was said?</i> _____	Yes	No	No Opinion
5. Do you think your voice represents your image of yourself (masculine, feminine, intelligent, educated, friendly, etc.)? <i>If Yes or No, in what way?</i> _____	Yes	No	No Opinion
6. Do any of your friends, male or female, have voices that you especially like? <i>If Yes, explain.</i> _____	Yes	No	No Opinion
7. Do any of your friends, male or female, have voices that you especially dislike? <i>If Yes, explain.</i> _____	Yes	No	No Opinion
8. Does your voice sound like that of any other member of your family? <i>If Yes, explain.</i> _____	Yes	No	No Opinion
9. Circle any words below that describe your voice and the way you speak in general (either on tape replay or while actually talking).			
<p>pleasant</p> <p>sexy</p> <p>raspy</p> <p>hoarse</p> <p>harsh</p> <p>shrill</p> <p>squeaky</p> <p>monotonous</p> <p>nasal</p> <p>mumble</p> <p>husky</p>	<p>too soft</p> <p>high-pitched</p> <p>low-pitched</p> <p>grow</p> <p>too fast</p> <p>too slow</p> <p>weak</p> <p>breathy</p> <p>weak</p> <p>clear</p>	<p>too loud</p> <p>strong</p> <p>thin</p> <p>whiney</p> <p>interesting</p> <p>resonant</p> <p>masculine</p> <p>feminine</p> <p>resonant</p> <p>expressive</p> <p>average</p>	<p>Add any other terms that may describe your voice.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>

Vocal Self-Perception: Attitudinal Questionnaire

VOICE CONSERVATION INDEX FOR CHILDREN¹

CHILD'S INITIALS _____ AGE _____ SEX _____ DATE _____

Please circle the answer that is best.

1. When I get a cold, my voice gets hoarse.
All the time Most of the time Half the time Once in a while Never
2. After cheering at a ballgame, I get hoarse.
All the time Most of the time Half the time Once in a while Never
3. When I'm in a noisy situation, I stop talking because I think I won't be heard.
All the time Most of the time Half the time Once in a while Never
4. When I'm in a noisy situation, I speak very loudly.
All the time Most of the time Half the time Once in a while Never
5. When I'm at home or at school, I spend a lot of time talking every day.
All the time Most of the time Half the time Once in a while Never
6. I like to talk to people who are far away from me.
All the time Most of the time Half the time Once in a while Never
7. When I play outside with my friends, I yell a lot.
All the time Most of the time Half the time Once in a while Never
8. I lose my voice when I don't have a cold.
All the time Most of the time Half the time Once in a while Never
9. People tell me I talk too loudly.
All the time Most of the time Half the time Once in a while Never
10. People tell me I never stop talking.
All the time Most of the time Half the time Once in a while Never
11. I like to talk.
All the time Most of the time Half the time Once in a while Never
12. I talk on the phone.
All the time Most of the time Half the time Once in a while Never
13. At home, I talk to people who are in another room.
All the time Most of the time Half the time Once in a while Never
14. I like to make car or other noises when I play.
All the time Most of the time Half the time Once in a while Never
15. I like to sing.
All the time Most of the time Half the time Once in a while Never
16. People don't listen to me unless I talk loudly.
All the time Most of the time Half the time Once in a while Never

Source: Saniga, R.D. and Carlin, M.F. "Vocal Abuse Behaviors in Young Children". Language, Speech, and Hearing Services in Schools, 1993: 24 (2), p. 83. Reprinted by ASHA with permission of authors..

Voice Conservation Index for Children

¹ Saniga and Carlin (1991)